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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/775,634	02/10/2004	Jon D. Pearson	JPA-1	1328
53317 7590 07/12/2007 AQUILLA PATENTS & MARKS, PLLC 221 COE HILL ROAD CENTER HARBOR, NH 03326-3605			EXAMINER MAYO, TARA L	
			ART UNIT 3671	PAPER NUMBER
			MAIL DATE 07/12/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/775,634

Applicant(s)

PEARSON, JON D.

Examiner

Tara L. Mayo

Art Unit

3671

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 February 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_.

## DETAILED ACTION

### *Drawings*

1. Figures 3A and 3B should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### *Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1 through 3, 7 through 9 and 13 through 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gordon (U.S. Patent No. 6,665,898 B2) in view of Reeder et al. (U.S. Patent No. 6,460,209 B1) and Pepe (U.S. Patent No. 5,787,531).

Art Unit: 3671

Gordon '898, as seen in Figures 3A, 3B, 4 and 7, shows an apparatus (24) for adjusting firmness, support, or sag of a mattress, comprising:

with regard to claim 1,

a substantially convex cross-sectional shape that is thicker in the center region and gradually thinner toward the edges (claims 5, 7 and 14);

a material and constitution for maintaining the convex shape under the weight of the mattress and a person (Figure 3B); and

a set of dimensions large enough to adjust firmness, support, or sag for the majority of an area of the mattress used by the person (col. 2, lines 38 through 44);

with regard to claim 2,

wherein the apparatus comprises a substantially oval shape;

with regard to claim 3,

wherein the apparatus is inflatable to achieve adjustability to the level of firmness, support or sag;

with regard to claim 7,

a plurality of inflatable chambers (32B, 32C, 32D);

a substantially convex cross-sectional shape, after inflation, that is thicker in the center region and gradually tapered toward the edges;

an arrangement and shape of the chambers for maintaining the convex shape under the weight of the mattress and a person;

a set of dimensions large enough to adjust firmness, support, or sag for the majority of an area of the mattress used by the person; and

Art Unit: 3671

an adjustability of firmness, support, or sag controlled by degree of inflation of said chambers;

with regard to claim 8,

wherein the plurality of chambers are inflatable by way of at least one inflation opening;

with regard to claim 9,

wherein the plurality of chambers are separate, with each chamber inflatable by way of a separate inflation opening (col. 3, line 59 through col. 4, line 4);

with regard to claim 14,

wherein the apparatus is placed between a mattress and a box spring (col. 3, lines 18 through 21);

with regard to claim 15,

wherein the mattress is a king-size mattress (col. 3, line 34);

with regard to claim 16,

wherein the mattress is a queen-size mattress (col. 3, line 34);

with regard to claim 17,

wherein the mattress is a double-size mattress (col. 3, line 34); and

with regard to claim 18,

wherein the mattress is a twin-size mattress (col. 3, line 14).

Gordon '898 discloses all of the features of the claimed invention with the exception(s) of:

with regard to claim 1,

Art Unit: 3671

the apparatus comprising a material and constitution for maintaining the convex shape under the weight of the mattress and a person;

with regard to claims 4 and 10,

baffles comprising a flexible material attached inside the apparatus to the top and bottom thereof, with shorter pieces of the flexible material located toward the edges and with longer pieces of the flexible material located in the center areas;

with regard to claims 5 and 11,

a plurality of hollow chambers attached inside the apparatus attached to the top and bottom thereof, with shorter hollow chambers located toward the edges and with longer hollow chambers located in the center areas;

with regard to claims 6 and 12,

separate inflatable chambers of varying diameters connected to form the convex shape, with chambers having a larger diameter arranged near a center of the apparatus and progressively smaller diameter chambers being arranged toward the edge thereof; and

with regard to claim 7,

an arrangement and shape of the chambers for maintaining the convex shape under the weight of the mattress and a person.

Reeder et al. '209, as seen in Figures 11 and 12, show an apparatus (96) for adjusting the firmness, support or sag of a mattress (52) including baffles comprising flexible material attached inside the apparatus to both the top and the bottom thereof preventing the further expansion of the apparatus at those points, with shorter pieces (218) of the flexible material

Art Unit: 3671

located toward the edges to keep the edges thinner, and with longer pieces (218') of the flexible material located in the center areas to allow the center areas to expand thicker when inflated (col. 22, line 64 through col. 23, line 34); and further comprising a plurality of hollow chambers attached inside the apparatus with shorter hollow chambers (224) located toward the edges and with longer hollow chambers (224') located in the center areas.

Pepe '531, as seen in Figures 8 and 9, shows an air mattress comprising a plurality of separate inflatable chambers (55) connected to form a convex shape, with chambers having a larger diameter arranged near the center of the mattress and chambers having progressively smaller diameters arranged toward the edge thereof to achieve constant pressure distribution over the length of the mattress (col. 2, lines 61 through 65).

With regard to claims 1 and 7, as seen in Figure 3B and disclosed in column 2 at lines 38 through 44 and column 3 at lines 3 through 6, the mattress maintains its shape under the weight of a mattress. Furthermore, it would have been obvious to one having ordinary skill in the art at the time of invention to modify the apparatus shown by Gordon '898 such that it would include the baffles of the device taught by Reeder et al. '209 and the inflatable chambers of varying diameter taught by Pepe '531. The motivation would have been to impart means for assisting the apparatus in maintaining its convex shape under the additional weight of a person.

With regard to claims 4 and 10, it would have been obvious to one having ordinary skill in the art of mattress supports at the time the invention was made to modify the device shown by Gordon '898 such that it would include baffles as taught by Reeder et al. '209 to customize desired areas of support.

Art Unit: 3671

With regard to claims 5 and 11, it would have been obvious to one having ordinary skill in the art of mattress supports at the time the invention was made modify the device shown by Gordon '898 such that it would include hollow chambers as taught by Reeder et al. '209 to customize desired areas of support.

With regard to claims 6 and 12, it would have been obvious to one having ordinary skill in the art of mattress supports at the time the invention was made to modify the device shown by Gordon '898 such that it would include inflatable chambers of varying diameter as taught by Pepe '531 to achieve constant pressure distribution over the length of the apparatus.

With regard to claim 13, the method steps recited therein are inherent to the use of the device shown by Gordon '898.

### *Conclusion*


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tara L. Mayo whose telephone number is 571-272-6992. The examiner can normally be reached on Monday through Friday 8:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas B. Will can be reached on 571-272-6998. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



Art Unit: 3671

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
TARA L MAYO  
PRIMARY EXAMINER  
Art Unit 3671

  
tlm  
03 July 2007